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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,127	04/08/2005	Douglas Hohlbein	6554-00	2645
23909 7590 04/06/2007 COLGATE-PALMOLIVE COMPANY 909 RIVER ROAD PISCATAWAY, NJ 08855			EXAMINER GUIDOTTI, LAURA COLE	
			ART UNIT 1744	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/531,127

Applicant(s)

HOHLBEIN, DOUGLAS

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4, 5, 7-8, 10, 13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohlbein, US 6,088,870 in view of Halm, US 5,052,071.

Hohlbein discloses the claimed invention including a handle (12), a flexible head secured to the handle (18; Column 3 Lines 15-18), the head mounted to the handle (Figures 1-2), the head having an upper face (14) with fingers (16, 26) flexibly mounted thereon (via 20, 22; Column 3 Lines 32-42; Figure 4), and ribs (22) connecting the fingers to the upper face (see Figure 4), whereby flexure of head under compression or expansion along the longitudinal axis causes a longitudinal movement of ends of the ribs with respect to each other and a lateral movement of the fingers relative to a longitudinal axis of the toothbrush (as ribs 22 are flexible, one is capable of flexing the head under compression or expansion along the longitudinal axis to cause a longitudinal movement of ends of ribs and lateral movement of fingers relative to the longitudinal axis, Figure 4 in particular shows lateral movement of the fingers). Regarding claim 4, the fingers (16, 26) are mounted in openings in a flexible face of the head (see Figures 2-6). Regarding claim 5, the ribs interconnecting the fingers and flexible face are formed of polypropylene (Column 4 Lines 25-26). Regarding claims 7

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and 15, multiple fingers (16, 26) are interconnected by ribs (22) on opposite sides of the fingers (as shown in Figure 3) whereby fingers move in opposite directions when the head is flexed (as shown in Figure 4). Regarding claim 10, the ribs extend from the upper face and connect the finger to the upper face (see Figures 5-6, the rib extends at the upper face to connect the finger to the upper face), the ribs disposed at an acute angle to the longitudinal axis (see Figure 3, some ribs 22 are at an acute angle to longitudinal axis A), and flexure of the head under compression along the longitudinal axis causes a lateral movement of the finger relative to the longitudinal axis of the toothbrush (as shown in Figure 4). Regarding claim 13, the finger (26) extends through an aperture in the face of the head (see Figure 6). Regarding claims 8 and 16, the finger comprises multiple fingers connected by ribs and some of the fingers are disposed along at least one edge of the head (as shown in Figure 3), and the head comprises cleaning elements disposed thereon (16). Hohlbein does not disclose that the head is flexibly mounted to the handle along a longitudinal axis.

Halm teaches a toothbrush head (10) flexibly mounted to a handle (14) along a longitudinal axis (as shown in Figure 1) by means of a flexible portion (18) so that when pressure is applied to the head, the head portion will be able to be moved at an angle to the handle, and resiliently will be able to revert to its original position after releasing the pressure (Column 1 Lines 52-58) to prevent the application of too much or insufficient pressure to teeth and gums (Column 1 Lines 11-26).

It would have been obvious for one of ordinary skill in the art to modify the head and handle Hohlbein so that they are flexibly mounted, as Halm teaches, so that when a

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user is applying pressure to the head during brushing the head will be capable of moving at an angle relative to the handle so that a user is brushing at an optimal angle and so that the user does not apply too much or insufficient pressure to gum and tooth surfaces while brushing.

2. Claims 1-3, 6, 10-12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heymann et al., US 2,154,846 in view of Halm, US 5,052,071.

Heymann et al. disclose the claimed invention including a handle (16), a flexible head secured to the handle (unclear, see Page 1 Column 2 Line 13; portion that carries 11, see leftmost portion of Figure 1), the head mounted to the handle along a longitudinal axis (Figure 1), the head having an upper face (unlabeled, uppermost face as extending out of the page in the direction of 10 as shown in Figure 1) with fingers (10) flexibly mounted thereon (see Figures; Page 2 Column 2 Lines 1-6), and ribs (material formed between each of the fingers, see portion that includes 12) connecting the fingers to the upper face (see Figures), whereby flexure of head under compression or expansion along the longitudinal axis is capable of causing a longitudinal movement of ends of the ribs with respect to each other and a lateral movement of the fingers relative to a longitudinal axis of the toothbrush (Page 2 Column 2 Lines 1-6). Regarding claims 2 and 11, a portion of the fingers comprise a soft elastomeric material (Page 1 Column 2 Line 13). Regarding claims 3 and 12, a composition of the rib material is stiffer than the elastomeric material of the fingers (as the rib includes metal cores, Page 1 Column 2 Lines 13-23). Regarding claims 6 and 14, multiple fingers (10) are connected by ribs on one side of the figures (as the ribs include the material extending

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between the fingers) whereby the fingers move in opposite lateral directions when the head is flexed along the longitudinal axis (Page 2 Column 2 Lines 1-6). Regarding claim 10, the ribs extend from the upper face and connect the finger to the upper face (see Figures), the ribs disposed at an acute angle to the longitudinal axis (as the ribs include the material between the fingers), and flexure of the head under compression along the longitudinal axis causes a lateral movement of the finger relative to the longitudinal axis of the toothbrush (Page 2 Column 2 Lines 1-6). Heymann et al. does not disclose that the head is flexibly mounted to the handle.

Halm teaches a toothbrush head (10) flexibly mounted to a handle (14) along a longitudinal axis (as shown in Figure 1) by means of a flexible portion (18) so that when pressure is applied to the head, the head portion will be able to be moved at an angle to the handle, and resiliently will be able to revert to its original position after releasing the pressure (Column 1 Lines 52-58) to prevent the application of too much or insufficient pressure to teeth and gums (Column 1 Lines 11-26).

It would have been obvious for one of ordinary skill in the art to modify the head and handle Heymann et al. so that they are flexibly mounted, as Halm teaches, so that when a user is applying pressure to the head during brushing the head will be capable of moving at an angle relative to the handle so that a user is brushing at an optimal angle and so that the user does not apply too much or insufficient pressure to gum and tooth surfaces while brushing.

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3. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohlbein, US 6,088,870 and Halm, US 5,052,071 as applied to claims 8 and 16 respectively, in view of Urbush, US 3,316,576.

Hohlbein and Halm disclose all elements mentioned above, however do not disclose that cleaning elements are moved by a powered source in the toothbrush.

Urbush teaches a toothbrush comprising a handle (12), a head (18) connected to the handle by a neck element (14), and a powered source that is a mechanical vibratory device (portions 40, 41, 42, 43) which causes the head and thus the cleaning elements (19) to vibrate (via 21; Column 2 Lines 33-39). Urbush utilizes a conventional toothbrush (Column 1 Lines 48-49) and the device is capable of using various sizes and types of conventional toothbrushes in the vibratory portion (Column 1 Lines 13-20).

It would have been obvious for one of ordinary skill in the art to modify the toothbrush of Hohlbein and Halm to be attached to a toothbrush wherein the cleaning elements are moved by a powered source in the toothbrush, as Urbush teaches, in order to provide vibrating driven cleaning elements to beneficially remove plaque from teeth.

Response to Arguments

4. Applicant's arguments filed 25 January 2007 have been fully considered but they are not persuasive.

Halm does in fact provide a teaching that the head is flexibly mounted to the handle along a longitudinal axis as stated above, the longitudinal axis being the axis along the length of the entire toothbrush.

Hohlbein, as stated above, does in fact include a toothbrush that flexure of the head under compression or expansion along the longitudinal axis is capable of causing a longitudinal movement of ends of the ribs with respect to each other and a lateral movement of the fingers relative to the longitudinal axis of the head. If a user having a sufficient compressive or expansion force would be capable of having the flexible ends of the ribs have a longitudinal movement with respect to each other given the flexible nature of the toothbrush head of Hohlbein.

Again like Hohlbein, Heymann does in fact include a toothbrush that flexure of the head under compression or expansion along the longitudinal axis is capable of causing a longitudinal movement of ends of the ribs with respect to each other and a lateral movement of the fingers relative to the longitudinal axis of the head. If a user having a sufficient compressive or expansion force would be capable of having the flexible ends of the ribs have a longitudinal movement with respect to each other given the flexible nature of the rubbery toothbrush head.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

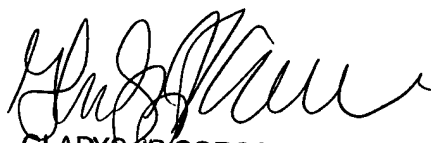
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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